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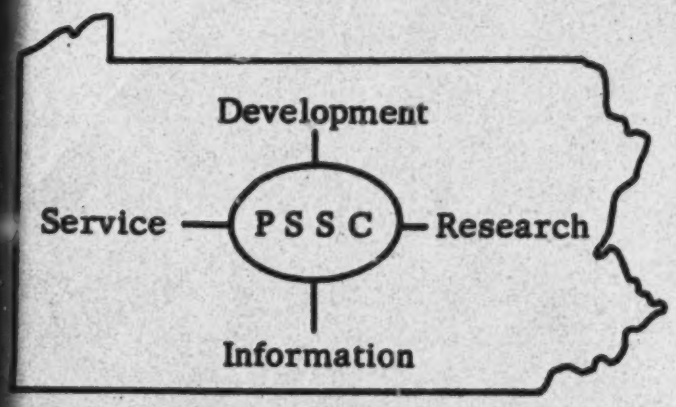
This study attempts to determine the effectiveness of a self-appraisal guide in an inservice education program for elementary teachers as measured by pupil achievement on a standardized achievement test. In one public school system in Pennsylvania an inservice education program was designed using "A Guide to the Self-Appraisal and Development of Elementary Schools" as a basis for discussion at a series of inservice meetings. Four fifth and four sixth grade teachers and their classes were chosen to be a part of the study. None of the teachers were told that a study was being undertaken, but were led to believe that it was a normal inservice program. Eight control and eight experimental groups, comparable in I.Q. and past achievement and each with approximately 250 pupils, were used. The inservice program was explained to the teachers at a general teachers' meeting at which five subsequent meetings were scheduled. Each group was pre- and post-tested to measure the gain made by the experimental group. The "t-test" was used to measure the level of significant difference that arose. Compared with pupils in the control group, the program of inservice education for elementary teachers increased the achievement of pupils in the experimental group. (HW)



BULLETIN

PENNSYLVANIA
SCHOOL STUDY COUNCIL

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THE EFFECTIVENESS OF A SELF-APPRAISAL GUIDE IN AN IN-SERVICE EDUCATION PROGRAM

by

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During the past three years, throughout the state of Pennsylvania, a number of schools have taken part in pilot studies using a teacher self-study or self-appraisal guide to evaluate the quality of teaching and instruction that has been taking place within the school unit. For the most part, this has been taking place on an elementary school level. Secondary school personnel have been participating in self-evaluation for over twenty-five years.

Individuals serving in a supervisory capacity should attempt to create an atmosphere in which everyone is constantly striving to improve themselves and to improve the level of instruction in their classrooms. Equally important should be the desire to help others in the staff grow professionally as well as to improve and enrich the curriculum. One of the techniques to achieve these purposes or goals is the in-service education program. "Unaided teachers cannot hope to keep informed about the prodigious amount of new knowledge in subject matter areas and the wealth of new information on educational practices, theory and research."[1] Furthermore, it is common knowledge that there are teachers on many staffs who have not had the benefit of at least a four-year college program. There are teachers who have been graduated from colleges or universities ten or more years ago and have not been exposed to any further preparatory experience since that time. There are those teachers who do not attend workshops and conferences of their own volition. There are those teachers who read very few educational books and magazines each year. Briefly, many teachers have a very provincial and narrow perspective as educators.

In-service education for teachers will not correct all weaknesses in the instructional program of the school. On the other hand, according to the Research Division of the National Education Association, "It does recognize that the basic factor in improved instruction is the teacher and back of the improved curriculum is the human element." They go on further to state that "professional growth activities for teachers are most effective when they include well-conceived purposes and evaluative techniques."[2] Many educators feel that an in-service education program, using a self-evaluation guide, will lead to the professional growth of teachers and thereby to increased learning on the part

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[1]"NEA's Role in the Improvement of Instruction," NEA Journal, Vol. 56, No. 1 (January, 1967), p. 17.

[2]NEA, Research Division, In-Service Education of Teachers, Research Summary 1966-S1 (Washington, D.C.: Government Printing Office, November, 1966), p. 3.

of the pupils, as measureable by standardized tests of achievement and intelligence.

Joyce[3] did a survey of the fifty state departments of education to determine if self-evaluation guides were being used in each state and, if they were, what guides were being used. He identified 31 different guides in use at that time. Joyce also reported that the function of the evaluation should be the stimulation for improvement of instruction and under this primary function he listed "the use of evaluation guides as a basis for in-service education."

This writer, therefore, decided to select a self-study guide, take the materials found in the guide and work them into an in-service education program for elementary teachers. If the contention of this writer and other educators was correct, teachers would learn and obtain new ideas from a program such as this and take this information back into the classroom. This should lead to a change in teaching habits and procedures on the part of the teacher and have an influence on the level of achievement on the part of the pupil.

A number of self-appraisal guides were reviewed. After much study and investigation, it was decided by the writer and his committee that "A Guide to the Self-Appraisal and Development of Elementary Schools"[4] would be the instrument that would be used in this study. This instrument was judged to be superior to many other in the country, much easier to handle and understand, and less voluminous than some. Furthermore, this guide not only had five levels of attainment for discussion on each item, as did a number of other guides, but also described or defined each level of attainment. This characteristic of the guide gave much more meaning to each item as it was discussed.

Statement of the Problem

The main problem of this study was to determine the effectiveness of a self-appraisal guide in an in-service education program for elementary teachers as measured by pupil achievement on a standardized achievement test.

Procedure of the Investigation

In one public school system in Pennsylvania an in-service education program was designed using "A Guide to the Self-Appraisal and Development of Elementary Schools"

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[3] Andrew M. Joyce, "A Study of Instruments for the Evaluation of the Elementary School Program." (unpublished Doctoral thesis, The University of Southern California, Los Angeles, 1961).

[4] A Guide to the Self-Appraisal and Development of Elementary Schools, Third ed., revised, (a publication of the Pennsylvania School Study Council, University Park, 1965), 162pp.

as a basis for discussion at a series of in-service meetings.

According to DeLacy in the Foreword of the guide used in this study,

> Perhaps one of the more important aims of an evaluation is to create an awareness that better things exist. Attention is focused upon what prevails and upon what is possible. Attitude, methods, materials, organization, and physical facilities, may all be improved. Evaluation provides the basis of terminating that which is useless, maintaining that which is good, modifying that which may be improved, and adding that which is needed.5

Eight intermediate teachers, four fifth grade teachers and four sixth grade teachers, and their classes were chosen to be a part of this study. None of the teachers were told that a study was being undertaken. All were led to believe that it was a normal in-service education program. This was done to lessen the possibility that the "Hawthorne effect" would be an influence in the study.

Eight control groups and eight experimental groups were set up by the elementary principal. There were approximately 250 pupils in the control group and 250 pupils in the experimental group. The classes were matched (control and experimental) relative to the number of pupils in each class, comparable ability with respect to the average I.Q. in each class, and comparable ability relative to the average past achievement of pupils in each class.

A general teachers' meeting was held prior to the first day of school in September. It was explained to the teaching staff that an in-service education program based on the materials contained in a self-appraisal guide would be the theme of the meetings for the year. Five meetings were scheduled. The meetings were scheduled during the first half of the school year; two in the month of October, two in the month of November and one in December.

It was expected that the in-service meetings would provide information, ideas, materials, and new procedures and methods to the teaching staff that would lead to: (1) professional growth on the part of the staff, (2) improved instruction in the classroom, and (3) greater achievement on the part of the pupils.

The in-service meetings were held during the first four months of the school year so that the teaching staff would have an opportunity to use information gathered at the meetings, if they so desired, during the remaining months of the school year.

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[5] Ibid., p. iv.

The procedure as outlined in the guide was followed. Each meeting dealt with materials in the guide: two meetings were used to cover the materials contained in the Language Arts section and one meeting each for the mathematics section, the science section and the social studies section.

The items in each section of the guide were read to the group. An explanation of each item was given by the leaders of each in-service meeting and a discussion period of the five levels of attainment for each item followed. Teachers were encouraged to share their opinions with the rest of the group.

A pre-test and a post-test was administered to each control group in order to determine the mean gain for each pupil during the year preceding the in-service education program. A pre-test was administered to the experimental group before the in-service education program took place. A post-test was administered to the experimental group after the in-service education program had been in effect.

Supervisory visits and classroom observations were carried out in the same manner as they had been in the past. The testing procedure was not varied from what it had been. There were no new textbooks, materials or equipment purchased because of the experiment. Teachers did not take part in other workshops, college courses or conferences. It was thought that all uncontrollable effects were operating similarly on both groups. Therefore, the superior gains in pupil achievement, if any, in the experimental group as compared with the gains in pupil achievement in the control group, would result from the program of in-service education.

Supervisory Visits to the Classroom

The elementary principal visited the classes regularly throughout the school year. This was not new to the teachers; it was the normal procedure followed during the past years. However, unknown to the teachers, the principal was attempting to note possible changes in their teaching behavior which might have been brought about by the discussions in the in-service meetings.

The principal was able to make a number of comparisons between the teaching before and after the in-service education program. He noticed increased emphasis, activity, or change in procedure in the following areas: (1) the teaching of phonetic principles; (2) the presentation of word meaning skills; (3) multiple purposes for silent and oral reading; (4) programs for the appreciation of literature and poetry; (5) the use of various methods of teaching spelling rather than the textbook outline alone; (7) presentation of the underlying principles in our number system; (8) the flexibility of topics for composition work leading to creativitiy on the part of the pupils; (9) flexibility in grouping;

(10) pupil participation in science experiments and demonstrations; (11) group, committee, and activity work in the social studies; and (12) the assessing of individual pupil differences and difficulties.

The preceding changes noted by the elementary principal were not measurable in the same manner as pupil achievement on standardized tests but the investigator thought they were worth noting since he was of the opinion that they would have a bearing on any increased learning on the part of the pupils.

Measurement or Statistical Problem

The statistical problem was that of evaluating the change shown by the experimental group compared to that shown by the control group. It was decided to use the "t test" to measure the level of significant difference that might have arisen. Any difference was thought to be significant at the .05 level.

Test for Significance

Each of the eight control groups made gains during the year preceding the in-service education program. Seven of the eight experimental groups made greater gains in the total test battery, but not in all of the subtests of the standardized test, during the year in which the in-service education program took place. The "t test" calculation showed that those seven experimental groups had gains that were significant beyond the .05 level.

The same procedure was followed to determine if significant gains took place in each of the individual sections or subtests of the total test battery. The results varied.

For most sections of the test battery the experimental groups had gains that were greaterthan those of the corresponding control groups. Proportionately, however, there were not as many that had a level of significance of .05 or beyond. Some of the groups approached the .05 level of significance in the subsections, but fell short in the total test battery.

In the subsections of the test battery there were 60 possible categories in which gains or losses could have been made. The experimental groups had made significant gains in 31 of those categories and gains in 16 others which were not, however, significant at the .05 level. The experimental groups showed losses in only 13 of the 60 categories.

General Conclusion

The general conclusion that may be drawn from this study is that a program of in-service education for elementary teachers using the Pennsylvania School Study Council Guide did, as observed through objective tests, increase the achievement of pupils in the experimental group when compared with pupils in the control group.

Suggestions for Administrators and Curriculum Coordinators

Administrators, supervisors and curriculum coordinators, among others, are constantly looking for methods of improving the teaching-learning process in the classroom. New teaching methods, new materials, new equipment and new ideas are available to the profession from other educators, educational organizations and research agencies. Such information should be made available to the professional staff of the school system.

This study attempted to measure the effect an in-service education program, using the materials and information contained in the PSSC self-appraisal guide, would have on the teaching staff of an elementary school. Since there was an effect on pupil achievement and since this effect produced significant gains in seven of the eight experimental groups, it may be assumed that an in-service education program of this type may be effective. Schools in need of an in-service education program which might lead to the improvement of instruction in the classroom should consider this particular guide as the basis for discussion at their in-service meetings.

There are many types of in-service meetings that can be conducted for school faculties. Some can be very expensive in terms of funds needed to carry on those programs. Some of the programs call for specialists to be brought in from outside the school system. Some programs call for expensive materials and equipment.

The cost of a program using the self-appraisal guide is relatively low. The guides themselves are inexpensive. The meetings can be conducted, as in this study, by members of the teaching staff. Outside consultants may be employed but often are available from nearby colleges or universities with little or no cost to the school system. Therefore, smaller school systems or school systems that do not have additional funds available for expensive in-service education programs could use a program such as this and limit the costs to fit their budgets. The expense of an in-service education program need not be a curtailing factor.

The information and the material contained in the guide is such that it could provide a number of in-service education programs for the entire school year. In fact,

the information and material contained in the guide could provide in-service education programs for a period of two or three years. The guide need not be completed in one school year.

The administrators, supervisors, and/or curriculum coordinators could use the guide and the in-service education programs to help overcome weaknesses they know to exist in their school systems.

The implications are many, but if an in-service education program of this type did nothing more than help to improve the level of instruction in the classroom, it would be worthwhile.